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## ABSTRACT

The Coping Analysis Schedule for Educational Settings (CASES), an observation instrument to identify students' primary coping or interaction styles, was evaluated with 44 educable mentally retarded (EMR), learning disabled (LD), or normal children (7 to 11 years old). CASES is intended to be a quantitative tool for collecting the data required under Federal guidelines as part of the student placement process. The study also investigated whether CASES could distinguish between learning disabled and other students. Ss were observed on two different days in similar settings by two different observers with results coded into the 19 CASES categories. Among results were the EMR Ss were less resistant and nonconforming than LD Ss and more other directed and task oriented than LD Ss or normal Ss. LD Ss did not differ significantly from normal Ss. CASES did appear to be appropriate and useful as a means of collecting observational data for diagnostic purposes. (DB)

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BEHAVIORAL COPING STYLES OF MENTALLY RETARDED  
AND LEARNING DISABLED PUPILS

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## INTRODUCTION

### Purpose

The basic premise of this study was that a need exists for a systematic means of collecting diagnostic observational data to be used in placement decisions for learning disabled students. Federal guidelines require classroom observation be conducted and the findings reported in the placement conference, yet no specific guidance is given as to the length of time and type of data to be reported. The Case Analysis Scheme for Educational Settings (CASES) was developed for the purpose of identifying specific types of classroom behavior or styles of coping and providing quantitative information upon which a judgment of classroom intervention plan can be developed. This study was designed to determine the usefulness of CASES as a quantitative tool for collecting the required observational data and reporting it to the placement committee. It was specifically intended to investigate the usefulness of CASES as an instrument capable of distinguishing between learning disabled students and other students.

In this study CASES was used in observation of handicapped students, specifically educable mentally retarded and learning disabled, and a matched group of normally achieving students. It was hypothesized that distinct differences in styles would be evident for each group and could be used to distinguish between groups.

### Hypotheses

This investigation was designed to test the following hypotheses:

- H<sub>1</sub>: There will be no significant differences between the CASES styles coefficients (totals) for the three groups of subjects.
- H<sub>2</sub>: There will be no significant differences between the CASES styles coefficients (totals) for Group 1 (EMR) and Group 2 (LD).
- H<sub>3</sub>: There will be no significant differences between the CASES styles coefficients (totals) for Group 1 (EMR) and Group 3 (Normal Achievers).
- H<sub>4</sub>: There will be no significant differences between the CASES styles coefficients (totals) of Group 2 (LD) and Group 3 (NA).

## METHODOLOGY

### Instrumentation

The Coping Analysis Schedule for Educational Settings (CASES) is a tool for systematic observation developed by Spaulding and Papageorgiou as a means of measuring normal socialization and personality development in a variety of settings. The theoretical underpinning rests in ego theory, and the categories reflect a number of dimensions of personality development. The work of H. H. Anderson (1939, 1943) in the area of "integrative" and "dominative" social behavior influenced the development of CASES. The categories reflect not only active and passive styles of responding to the environment but also overt aggression, passive aggression, independence, autonomy, dependence, avoidance, and withdrawal.

Based on preliminary investigations of over 2500 case studies of overt behavior, categories have been identified which represent basic coping behaviors. These behaviors reveal how an individual interacts with the external environment. This interaction is considered integral to overall cultural adjustment and socialization.

CASES consists of 13 basic categories of coping behaviors identified by descriptive statements. In six categories, subscripts have been added to allow coding of

child behavior in terms of adult or cultural expectations as determined by the setting. A total of 19 categories permits the coding of observable behavior. CASES categories do not represent a continuum or scale. Although they are arranged ordinally from active to passive behaviors, they are discrete categories not indicating progression or relative value. The categories correspond to the descriptive statements used to define overt behaviors. The specific categories have been empirically refined through case studies conducted by investigators in a number of universities (Hofstra, Duke, and Illinois) over a period of seven years. Eight coping patterns, called styles, were identified through factor analysis of the data. Category frequencies result in coefficients representing the eight styles of coping behavior and a global coefficient which reflects an individual's overall coping competency in educational settings. The coping styles are based on characterizations of personal development.

Subjects were observed on two different days in similar settings by two different observers, and the two sets of scores were combined for a single set of scores for each subject. The learning disabled and the normal achieving students were observed in the regular classroom while the mentally retarded students were observed in the self-contained special education room.

To interpret the raw data obtained by the observers, the fragments of the observed behaviors in each of the categories were grouped, using the CASES factor-analytic grouping for style. This grouping reflects the underlying psychological constructs used in developing the CASES instrument. The individual items cluster as follows:

- Style A: Aggressive, manipulative  
Items 1, 2, 3b, and 9b
- Style B: Non-conforming, resistant  
Items 4, 5b, 7b, and 8b
- Style C: Withdrawn  
Items 12 and 13
- Style D: Peer dependent  
Items 6b and 11
- Style E: Adult dependent  
Items 6a, 7a, and 9a
- Style F: Social productive  
Items 3a and 8a
- Style G: Inner directed, task-oriented  
Item 5a
- Style H: Other directed, task-oriented  
Item 10

## Subjects

A total of thirty-four subjects, 30 males and 4 females, between the ages of 7 years, 7 months and 11 years, 5 months were selected. The three groups were selected by the Director of Special Education of the Public Schools and other administrative officers from among school populations of mentally retarded, learning disabled, and normal achievers. Students had already been classified as mentally retarded or learning disabled by the school system in compliance with state and federal guidelines. Normal achievers were identified as those achieving on grade level who had not been referred for special services. From the three pools of students, subjects were selected for participation in this study and matched for age and for sex.

## Procedure

Raters were trained in the use of CASES to .85 inter-rater reliability, using synchronized, independent ratings taken at 10 second intervals. A total of 100 samples taken at ten second intervals, were collected on each subject, with 50 morning samples and 50 afternoon samples taken on different days by different observers. Observers were not informed as to the classification (LD, EMR, NA) of the subjects. One-way analysis of variance was used to analyze raw score totals for each CASES style for each group as required to test hypothesis one as eight separate hypotheses. Other hypotheses were tested using Student-Neuman-Keuls multiple range test of differences of means.



## RESULTS

The analysis of the data for this study was designed to examine the differences between the CASES Styles coefficients (totals) of the following groups of subjects:

- Group 1: Educable mentally retarded students
- Group 2: Learning disabled students
- Group 3: Normal achieving students

The results of each statistical analysis are presented and are interpreted for each of the five hypotheses.

### Findings Related to Hypothesis One

- H<sub>1</sub>: There will be no significant differences between Styles coefficients for the three groups of subjects.

The data were examined to test this as eight separate hypotheses, testing for differences on each of the eight separate styles and the results are presented for each style and hypothesis. The CASES Styles coefficients (totals) of the subjects in the three groups were significantly different with respect to the following coping styles:

- Style B: Non-conforming, resistant  $P < .05$
- Style H: Other directed, task-oriented  $P < .01$

The summary table for the ANOVA is shown in Table 1.

Hypothesis one was rejected for Styles B and H and accepted for Styles A, C, D, E, F, and G.

#### Findings Related to Hypothesis Two

H<sub>2</sub>: There will be no significant differences between the CASES Styles coefficients (totals) between Group 1 (EMR) and Group 2 (LD).

The results of the Student-Neuman-Keuls\* multiple range test was conducted on each pair of CASES Style means indicated that there were no significant differences among groups on six of the eight styles (Table 2). Significant differences at the  $P < .05$  level were found between Group 1 (EMR) and Group 2 (LD) on the following coping styles:

Style B: Non-conforming, resistant

Style H: Other directed, task-oriented

Group 2 (LD) was found to be significantly more non-conforming and resistant and less other-directed and task-oriented than Group 1 (EMR). Hypothesis two, therefore, is rejected for Styles B and H and accepted with respect to Styles A, C, D, E, F, and G.

#### Findings Related to Hypothesis Three

H<sub>3</sub>: There will be no significant differences between the CASES Styles coefficients (totals) of Group 1 (EMR) and Group 3 (Normal Achievers).

An examination of the data in Table 2 reveals that there are no significant differences between Group 1 (EMR) and Group 3 (NA) on seven of the eight CASES coping styles.

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\*Winer, B. J. Statistical Principles in Experimental Design. New York: McGraw Hill, Inc., 1962, p. 80.

TABLE 1  
SUMMARY OF ANALYSIS OF VARIANCE OF TOTALS BY STYLES

Style	Group 1		Group 2		Group 3		SS <sub>bg</sub>	SS <sub>wg</sub>	MS <sub>bg</sub>	MS <sub>wg</sub>	df <sub>bg</sub>	df <sub>wg</sub>	F	p
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD								
A	1.57	1.91	1.53	2.06	2.00	4.38	2.00	375.16	1.00	9.15	2	41	0.109	ns
B	6.71	6.63	19.20	15.20	11.87	13.39	1145.74	6292.99	572.87	153.87	2	41	3.732	.05
C	1.64	3.00	0.73	1.16	0.80	0.94	7.36	148.55	3.68	3.62	2	41	1.016	ns
D	16.93	7.84	18.33	8.11	14.07	7.76	141.60	2563.19	70.80	62.52	2	41	1.133	ns
E	6.00	5.92	5.87	6.92	9.60	11.35	133.21	2929.33	66.61	71.45	2	41	0.932	ns
F	5.57	8.64	4.53	5.28	5.13	9.28	7.90	2564.89	3.95	62.56	2	41	0.063	ns
G	25.28	17.89	29.73	19.78	30.07	22.80	204.08	16914.69	102.04	412.55	2	41	0.247	ns
H	37.28	14.16	19.93	13.79	26.40	14.70	2216.49	8291.39	1108.24	202.23	2	41	5.480	.01

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H	37.28	14.16	19.93	13.79	26.40	14.70	2216.49	8291.39	1108.24	202.23	2	41	5.480	.01

The groups were found to be significantly different on the following style:

Style H: Other-directed, task-oriented

Group 1 (EMR) subjects were found to be more other-directed and task-oriented than Group 3 (NA). Hypothesis three is rejected for Style H and accepted for Styles A, B, C, D, E, F, and G.

#### Findings Related to Hypothesis Four

H<sub>4</sub>: There will be no significant differences between the CASES Styles coefficients (totals) of Group 2 (LD) and Group 3 (NA).

Data analysis revealed no significant differences between the CASES Styles coefficients of Group 2 (LD) and Group 3 (NA) (Table 2). Hypothesis four was accepted.

#### Discussion

There were statistically significant differences in the CASES Styles coefficients among the three groups, Group 1 (EMR), Group 2 (LD), and Group 3 (NA), as indicated in Table 1 and the discussion of findings for Hypothesis one. The other hypotheses and data analyses were intended to reveal the specific nature of those differences. Group 1 (EMR) subjects were found to be less resistant and non-conforming than subjects in Group 2 (LD) and more other-directed and task-oriented than subjects in Group 2 (LD) and Group 3 (NA). Group 2 (LD) subjects were not found to be significantly different from Group 3 (NA) subjects.

The basic purpose for which the Coping Analysis Schedule for Educational Settings (CASES) was developed was to identify students' primary coping or interaction styles, to establish behavioral goals to increase or decrease targeted styles and to design treatments or classroom intervention plans to reach behavioral goals. This investigation proposed that the Coping Analysis Schedule for Educational Settings (CASES) is appropriate and useful as a means of collecting observational data for diagnostic purposes, particularly in the identification of learning disabled students. The research hypothesis that learning disabled students would differ significantly from educable mentally retarded students and normal achieving students of the same sex and age was only partially supported. Differences (Styles B and H) were found between learning disabled students and educable mentally retarded students but no significant differences were found between learning disabled students and normal achieving students.

The assessment process conducted on students referred for evaluation should result in two outcomes: 1) a placement decision, and 2) in the case of a recommendation for special education placement, an individual educational plan (IEP). Observational data on student behavior are required and are useful in achieving both of these outcomes. The research hypothesis that CASES could be used to distinguish LD students from normal achievers was not supported. However, the usefulness of CASES in diagnosis should not be totally discounted. Placement is based upon a wide range of instruments in the areas of intelligence, achievement, and learning modalities, as well as health information. The observational data are reported in conjunction with other test data to present an overall picture of strengths and weaknesses upon which a decision is made. Although based solely upon CASES LD students could not be clearly distinguished from normal achievers, the CASES instrument provides information relevant to the placement committee and its task. The styles data, when reported with other assessment information, result in a more definitive description of the student because they add information collected in the group instructional setting. This is consistent with the purpose of the required observation, which is to report student behavior and show its relationship to academic performance. Thus, the use of CASES to collect these data appears justified.

A salient point should be made in relation to this study of the diagnostic use of CASES. It was assumed that

the groups (EMR, LD, and Normal Achievers) were distinct, as reflected in their school placement. However, because of the lack of a clear operational definition for learning disabilities and the error inherent in the standardized instruments used, the population from which the LD sample was taken may not have been a distinct, homogenous group. That factor obviously could have contributed greatly to the failure of the research hypothesis.

Based on the results of the analyses reported, this investigator concludes that the use of CASES as a means of collecting diagnostic observational data can provide pertinent information for use in placement of LD students and in the development of the IEP but cannot be used to distinguish learning disabled students from normal achievers in the placement process.



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